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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,523	09/01/2006	Yoshiyuki Asahina	01197.0282	2959

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FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP
901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

EXAMINER	
SERGENT, RABON A	

ART UNIT	PAPER NUMBER
1796	

MAIL DATE	DELIVERY MODE
09/24/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/591,523	ASAHINA ET AL.	
	Examiner	Art Unit	
	Rabon Sergent	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/1/06,4/17/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Firstly, with respect to claim 1, applicants have failed to set forth a basis for the claimed mass percents. It is unclear if they are based on the weight of the composition or some other entity.

Secondly, with respect to claim 9, the "block polyisocyanate composition" lacks antecedent basis from claim 1.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asahina et al. ('048) in view of Slack et al. ('519) or Bernard et al. (US 2003/0096909 A1).

Asahina et al. disclose polyisocyanates, blocked polyisocyanates, and coating compositions derived from reacting the polyisocyanate or blocked polyisocyanate with a polyol, wherein the polyisocyanates have a number of terminal isocyanate groups of 5 to 20 and are produced by reacting an aliphatic diisocyanate, cycloaliphatic diisocyanate, or mixture thereof with a polyhydroxyl compound having a functionality of 4.5 to 10 at an NCO/OH ratio of 2:1 to 30:1 and removing substantially all unreacted diisocyanate monomer. Patentees further disclose the presence of cyclic trimer (isocyanurate) and allophanate groups and further disclose that the polyisocyanate has a viscosity as high as 200,000 mPa·s/25°C. See abstract; column 6, lines 13+; column 7, lines 58+; column 8; column 10, lines 18+; column 11, lines 16+; column 12, lines 21; and column 16, lines 30-41. Furthermore, in view of the disclosure and examples, applicants' claimed polyol component concentration is considered to be met. See Table 1.

4. Though Asahina et al. disclose that mixtures of polyisocyanates can be used, patentees fail to disclose applicants' claimed ratio of aliphatic diisocyanate to alicyclic diisocyanate and further fail to disclose the claimed glass transition temperature range. However, the use of blends of aliphatic diisocyanate, such as hexamethylene diisocyanate, and alicyclic diisocyanate, such as isophorone diisocyanate, in the production of polyisocyanate compositions, intended for use in coating compositions was known at the time of invention. Slack et al. disclose such blends in the production of high viscosity, high equivalent weight polyisocyanate mixtures containing both allophanate and isocyanurate group and the use of the polyisocyanates to produce coatings. See abstract. Bernard et al. disclose within paragraph [0018] that blends of hexamethylene diisocyanates derivatives and isophorone diisocyanate derivatives are used to control the rate of surface drying and further disclose a relationship between surface hardness

and glass transition temperatures. Therefore, the position is taken that that the teachings of the references establish that the ratio of aliphatic diisocyanate to alicyclic diisocyanate and the glass transition temperatures of the polyisocyanates are result effective variables, and the position is taken that discovering optimum values of these result effective variables involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Accordingly, the position is ultimately taken that it would have been obvious to arrive at the claimed ratios and glass transition temperatures, based on the teachings of the references.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

/Rabon Sergent/
Primary Examiner, Art Unit 1796